

IN THE CLAIMS

This listing of claims replaces all prior listings:

1. (Currently Amended) A computer-implemented method in a data processing system for providing resources adapted to at least one of a plurality of user environments, the method comprising the steps of:

initiating execution of a program that has a session object that persists for the duration of a user session with the program and a resource identifier, ~~the program having~~ a session object including a plurality of resource data each of which is associated with one or more user environments and with the resource identifier, and ~~a the~~ resource identifier identifying that a resource data is required that is associated with a plurality of resource data stored in the session object; and

while the program is executing,

determining from the session object which of the plurality of user environments the program is executing in; and

identifying which of the resource data is suitable for the determined user environment by using both the resource identifier and the determined user environment.

2. (Original) The method of claim 1, wherein the determined user environment identifies a location of a user of the program.

3. (Original) The method of claim 1, wherein the determined user environment identifies a language of a user of the program.

4. (Original) The method of claim 1, wherein the program has a plurality of resource identifiers; and the method further comprising the steps of:

while the program is executing,

receiving a received resource data; and

identifying which of the resource identifiers is suitable for the determined user environment by using both the received resource data and the determined user environment.

5. (Original) The method of claim 1, wherein the step of identifying which of the resource data is suitable comprises:

loading a lookup object for linking the resource identifier with the resource data suitable for the determined user environment; and

obtaining the suitable resource data from the lookup object by using the resource identifier and the determined user environment.

6. (Original) The method of claim 5, wherein a number of users are using the data processing system; and wherein at least one lookup object is loaded for each user.

7. (Original) The method of claim 5, wherein a number of users are using the data processing system; and wherein at least one lookup object is loaded for a plurality of users.

8. (Original) The method of claim 5, wherein the step of obtaining the suitable resource data comprises:

generating a string identifier comprising the resource identifier and the user environment; and

obtaining the suitable resource data using the generated string identifier, wherein the lookup object includes a link between the string identifier and the suitable resource data.

9. (Original) The method of claim 5, wherein the step of obtaining the suitable resource data comprises:

invoking a dictionary function to obtain one of a plurality of lookup objects corresponding to the determined user environment and that link the resource identifier with the suitable resource data.

10. (Currently Amended) A computer-implemented method in a data processing system for providing resources adapted to at least one of a plurality of user environments, the method comprising the steps of:

initiating execution of a the program that has a session object that persists for the duration of a user session with the program and a resource identifier, the program having a session object including a plurality of resource data each of which is associated with one or more user environments and with the resource identifier, and a the resource identifier identifying that a resource data is required that is associated with a plurality of resource data stored in the session object; and

while the program is executing,
determining from the session object which of the plurality of user environments the program is executing in;
loading a lookup object for linking the resource identifier with a resource data suitable for the determined user environment; and
obtaining the suitable resource data from the lookup object by using the resource identifier and the determined user environment.

11. (Currently Amended) A computer-readable medium containing instructions that cause a data processing system to perform a computer-implemented method for providing resources adapted to at least one of a plurality of user environments, the method comprising the steps of:

initiating execution of a program that has a session object that persists for the duration of a user session with the program and a resource identifier, the program having a session object including a plurality of resource data each of which is associated with one or more user environments and with the resource identifier, and a the resource identifier identifying that a resource data is required that is associated with a plurality of resource data stored in the session object; and

while the program is executing,
determining from the session object which of the plurality of user environments the program is executing in; and
identifying which of the resource data is suitable for the determined user environment by using both the resource identifier and the determined user environment.

12. (Original) The computer-readable medium of claim 11, wherein the determined user environment identifies a location of a user of the program.

13. (Original) The computer-readable medium of claim 11, wherein the determined user environment identifies a language of a user of the program.

14. (Original) The computer-readable medium of claim 11, wherein the program has a plurality of resource identifiers; and the method further comprising the steps of:
while the program is executing,

receiving a received resource data; and
identifying which of the resource identifiers is suitable for the determined user environment by using both the received resource data and the determined user environment.

15. (Original) The computer-readable medium of claim 11, wherein the step of identifying which of the resource data is suitable comprises:

loading a lookup object for linking the resource identifier with the resource data suitable for the determined user environment; and

obtaining the suitable resource data from the lookup object by using the resource identifier and the determined user environment.

16. (Original) The computer-readable medium of claim 15, wherein a number of users are using the data processing system; and wherein at least one lookup object is loaded for each user.

17. (Original) The computer-readable medium of claim 15, wherein a number of users are using the data processing system; and wherein at least one lookup object is loaded for a plurality of users.

18. (Original) The computer-readable medium of claim 15, wherein the step of obtaining the suitable resource data comprises:

generating a string identifier comprising the resource identifier and the user environment; and

obtaining the suitable resource data using the generated string identifier, wherein the lookup object includes a link between the string identifier and the suitable resource data.

19. (Original) The computer-readable medium of claim 15, wherein the step of obtaining the suitable resource data comprises:

invoking a dictionary function to obtain one of a plurality of lookup objects corresponding to the determined user environment and that link the resource identifier with the suitable resource data.

20. (Currently Amended) A computer-readable medium containing instructions that

cause a data processing system to perform a computer-implemented method for providing resources adapted to at least one of a plurality of user environments, the method comprising the steps of:

initiating execution of a program ~~that has a session object that persists for the duration of a user session with the program and a resource identifier, the program having a session object including a plurality of resource data each of which is associated with one or more user environments and with the resource identifier, and a the resource identifier identifying that a resource data is required that is associated with a plurality of resource data stored in the session object;~~ and

while the program is executing,

determining from the session object which of the plurality of user environments the program is executing in;

loading a lookup object for linking the resource identifier with a resource data suitable for the determined user environment; and

obtaining the suitable resource data from the lookup object by using the resource identifier and the determined user environment.

21. (Currently Amended) A computer-implemented data processing system for providing resources adapted to at least one of a plurality of user environments, the data processing system comprising:

a memory comprising a program having a session object and a resource identifier, ~~the session object including a plurality of resource data each of which is associated with one or more user environments and with the resource identifier, the resource identifier identifying that a resource data is required that is associated with a plurality of resource data stored in the session object,~~ the program determining from the session object which of a plurality of user environments the program is executing in, and identifying which of the resource data is suitable for the determined user environment by using both the resource identifier and the determined user environment; and

a processing unit that runs the program.

22. (Original) The data processing system of claim 21, wherein the program has a plurality of resource identifiers; and wherein the program identifies which of the resource identifiers is suitable for the determined user environment by using both a received resource data

and the determined user environment.

23. (Original) The data processing system of claim 21, wherein the resource data comprise a string of at least one character.

24. (Original) The data processing system of claim 21, wherein the resource data comprise a resource function including rules for character representation.

25. (Original) The data processing system of claim 21, wherein the determined user environment identifies a location of a user of the program.

26. (Original) The data processing system of claim 21, wherein the determined user environment identifies a language of a user of the program.

27. (Original) The data processing system of claim 21, wherein the program determines the suitable resource data by loading a lookup object for linking the resource identifier with the resource data suitable for the determined user environment, and obtaining the suitable resource data from the lookup object by using the resource identifier and the determined user environment.

28. (Original) The data processing system of claim 21, wherein the program comprises:
a user parameter component for determining the user environment the program is executing in;

an application component for initiating execution of the program; and

a lookup component for identifying the suitable resource data.

29. (Original) The data processing system of claim 28, wherein the lookup component generates a string identifier comprising the resource identifier and the user environment, and generates the suitable resource data using the generated string identifier.

30. (Original) The data processing system of claim 28, wherein the lookup component invokes a dictionary function to obtain one of a plurality of lookup objects corresponding to the determined user environment and that link the resource identifier with the suitable resource data.

31. (Currently Amended) A computer-implemented data processing system for providing resources adapted to at least one of a plurality of user environments, the data processing system comprising:

means for initiating execution of a program that has a session object that persists for the duration of a user session with the program and a resource identifier, the program having a session object including a plurality of resource data each of which is associated with one or more user environments and with the resource identifier, ~~and a~~ the resource identifier identifying that a resource data is required ~~that is associated with a plurality of resource data stored in the session object~~; and

means for, while the program is executing,

determining from the session object which of the plurality of user environments the program is executing in; and

identifying which of the resource data is suitable for the determined user environment by using both the resource identifier and the determined user environment.

32. (Currently Amended) A computer-readable memory device encoded with a data structure with entries that are accessed by a program which is encoded on the memory device and which is run by a processor in a system, each entry comprising:

a first storage area that stores a resource identifier that indicates that a resource data is required; and

a plurality of second storage areas that each store one of a plurality of resource data corresponding to the resource identifier, each resource data associated with at least one user environment of a session object that persists for the duration of a user session with the program, wherein the program determines a suitable resource data to be used by using the resource identifier and an indication of a current user environment in which the program is running.

33. (Currently Amended) A computer-implemented method in a data processing system for providing resources adapted to at least one of a plurality of user environments, the method comprising the steps of:

initiating execution of a program that has an application object and a resource identifier, the program having a application object including a plurality of resource data each of which is associated with one or more user environments and with the resource identifier, ~~and a~~ the resource identifier identifying that a resource data is required ~~that is associated with a plurality of~~

resource data stored in the application object; and

while the program is executing,

determining from the application object which of the plurality of user environments the program is executing in; and

identifying which of the resource data is suitable for the determined user environment by using both the resource identifier and the determined user environment.

34. (Original) The method of claim 33, wherein the determined user environment identifies a location of a user of the program.

35. (Original) The method of claim 33 wherein the determined user environment identifies a language of a user of the program.

36. (Original) The method of claim 33, wherein the program has a plurality of resource identifiers; and the method further comprising the steps of:

while the program is executing,

receiving a received resource data; and

identifying which of the resource identifiers is suitable for the determined user environment by using both the received resource data and the determined user environment.

37. (Original) The method of claim 33, wherein the step of identifying which of the resource data is suitable comprises:

loading a lookup object for linking the resource identifier with the resource data suitable for the determined user environment; and

obtaining the suitable resource data from the lookup object by using the resource identifier and the determined user environment.

38. (Original) The method of claim 37, wherein a number of users are using the data processing system; and wherein at least one lookup object is loaded for each user.

39. (Original) The method of claim 37, wherein a number of users are using the data processing system; and wherein at least one lookup object is loaded for a plurality of users.

40. (Original) The method of claim 37, wherein the step of obtaining the suitable resource data comprises:

generating a string identifier comprising the resource identifier and the user environment;
and

obtaining the suitable resource data using the generated string identifier, wherein the lookup object includes a link between the string identifier and the suitable resource data.

41. (Original) The method of claim 37, wherein the step of obtaining the suitable resource data comprises:

invoking a dictionary function to obtain one of a plurality of lookup objects corresponding to the determined user environment and that link the resource identifier with the suitable resource data.

42. (Currently Amended) A computer-implemented method in a data processing system for providing resources adapted to at least one of a plurality of user environments, the method comprising the steps of:

initiating execution of a the program that has an application object and a resource identifier, the program having a application object including a plurality of resource data each of which is associated with one or more user environments and with the resource identifier, and a the resource identifier identifying that a resource data is required that is associated with a plurality of resource data stored in the application object; and

while the program is executing,

determining from the application object which of the plurality of user environments the program is executing in;

loading a lookup object for linking the resource identifier with a resource data suitable for the determined user environment; and

obtaining the suitable resource data from the lookup object by using the resource identifier and the determined user environment.

43. (Currently Amended) A computer-readable medium containing instructions that cause a data processing system to perform a computer-implemented method for providing resources adapted to at least one of a plurality of user environments, the method comprising the steps of:

initiating execution of a program that has an application object and a resource identifier, the program having a application object including a plurality of resource data each of which is associated with one or more user environments and with the resource identifier, and a the resource identifier identifying that a resource data is required that is associated with a plurality of resource data stored in the application object; and

while the program is executing,

determining from the application object which of the plurality of user environments the program is executing in; and

identifying which of the resource data is suitable for the determined user environment by using both the resource identifier and the determined user environment.

44. (Original) The computer-readable medium of claim 43, wherein the determined user environment identifies a location of a user of the program.

45. (Original) The computer-readable medium of claim 43, wherein the determined user environment identifies a language of a user of the program.

46. (Original) The computer-readable medium of claim 43, wherein the program has a plurality of resource identifiers; and the method further comprising the steps of:

while the program is executing,

receiving a received resource data; and

identifying which of the resource identifiers is suitable for the determined user environment by using both the received resource data and the determined user environment.

47. (Original) The computer-readable medium of claim 43, wherein the step of identifying which of the resource data is suitable comprises:

loading a lookup object for linking the resource identifier with the resource data suitable for the determined user environment; and

obtaining the suitable resource data from the lookup object by using the resource identifier and the determined user environment.

48. (Original) The computer-readable medium of claim 47, wherein a number of users are using the data processing system; and wherein at least one lookup object is loaded for each

user.

49. (Original) The computer-readable medium of claim 47, wherein a number of users are using the data processing system; and wherein at least one lookup object is loaded for a plurality of users.

50. (Original) The computer-readable medium of claim 47, wherein the step of obtaining the suitable resource data comprises:

generating a string identifier comprising the resource identifier and the user environment; and

obtaining the suitable resource data using the generated string identifier, wherein the lookup object includes a link between the string identifier and the suitable resource data.

51. (Original) The computer-readable medium of claim 47, wherein the step of obtaining the suitable resource data comprises:

invoking a dictionary function to obtain one of a plurality of lookup objects corresponding to the determined user environment and that link the resource identifier with the suitable resource data.

52. (Currently Amended) A computer-readable medium containing instructions that cause a data processing system to perform a computer-implemented method for providing resources adapted to at least one of a plurality of user environments, the method comprising the steps of:

initiating execution of a program that has an application object and a resource identifier, the program having a application object including a plurality of resource data each of which is associated with one or more user environments and with the resource identifier, and a the resource identifier identifying that a resource data is required that is associated with a plurality of resource data stored in the application object; and

while the program is executing,

determining from the application object which of the plurality of user environments the program is executing in;

loading a lookup object for linking the resource identifier with a resource data suitable for the determined user environment; and

obtaining the suitable resource data from the lookup object by using the resource identifier and the determined user environment.

53. (Currently Amended) A computer-implemented data processing system for providing resources adapted to at least one of a plurality of user environments, the data processing system comprising:

- a memory comprising a program having ~~a session~~ an application object and a resource identifier, the application object including a plurality of resource data each of which is associated with one or more user environments and with the resource identifier, the resource identifier identifying that a resource data is required ~~that is associated with a plurality of resource data stored in the session object~~, the program determining from the application session object which of a plurality of user environments the program is executing in, and identifying which of the resource data is suitable for the determined user environment by using both the resource identifier and the determined user environment; and

- a processing unit that runs the program.

54. (Original) The data processing system of claim 53, wherein the program has a plurality of resource identifiers; and wherein the program identifies which of the resource identifiers is suitable for the determined user environment by using both a received resource data and the determined user environment.

55. (Original) The data processing system of claim 53, wherein the resource data comprise a string of at least one character.

56. (Original) The data processing system of claim 53, wherein the resource data comprise a resource function including rules for character representation.

57. (Original) The data processing system of claim 53, wherein the determined user environment identifies a location of a user of the program.

58. (Original) The data processing system of claim 53, wherein the determined user environment identifies a language of a user of the program.

59. (Original) The data processing system of claim 53, wherein the program determines the suitable resource data by loading a lookup object for linking the resource identifier with the resource data suitable for the determined user environment, and obtaining the suitable resource data from the lookup object by using the resource identifier and the determined user environment.

60. (Original) The data processing system of claim 53, wherein the program comprises:
a user parameter component for determining the user environment the program is executing in;

an application component for initiating execution of the program; and

a lookup component for identifying the suitable resource data.

61. (Original) The data processing system of claim 60, wherein the lookup component generates a string identifier comprising the resource identifier and the user environment, and generates the suitable resource data using the generated string identifier.

62. (Original) The data processing system of claim 60, wherein the lookup component invokes a dictionary function to obtain one of a plurality of lookup objects corresponding to the determined user environment and that link the resource identifier with the suitable resource data.

63. (Currently Amended) A computer-implemented data processing system for providing resources adapted to at least one of a plurality of user environments, the data processing system comprising:

means for initiating execution of a program that has an application object and a resource identifier, the program having a application object including a plurality of resource data each of which is associated with one or more user environments and with the resource identifier, and a the resource identifier identifying that a resource data is required that is associated with a plurality of resource data stored in the application object; and

means for, while the program is executing,

determining from the application object which of the plurality of user environments the program is executing in; and

identifying which of the resource data is suitable for the determined user environment by using both the resource identifier and the determined user environment.

64. (Currently Amended) A computer-readable memory device encoded with a data structure with entries that are accessed by a program which is encoded on the memory device and which is run by a processor in a system, each entry comprising:

a first storage area that stores a resource identifier that indicates that a resource data is required; and

a plurality of second storage areas that each store one of a plurality of resource data corresponding to the resource identifier, each resource data associated with at least one user environment of an application object, wherein the program determines a suitable resource data to be used by using the resource identifier and an indication of a current user environment in which the program is running.